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10/770,432

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Adam Leslie Clark

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EXAMINER

AGHDAM, FRESHTEH N

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/770,432

Applicant(s)

CLARK, ADAM LESLIE

Examiner

Freshteh N. Aghdam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 2/13/2006 have been fully considered but they are not persuasive.

**Applicant's Argument(s):** On page 6, regarding independent claims 1, 11, and 20, applicant argues that the claimed invention is not taught or suggested by neither Lim (US 5,339,164) nor Sah et al (US 2003/0028509) "mapping multi-dimensional parameters of data values, each of which parameters requires more than one value to describe it, to respective one-dimensional parameters."

**Examiner's Response:** Regarding the argument of independent claims 1, 11, and 20, Lim teaches the limitation of mapping multi-dimensional parameters of data values, each of which parameters requires more than one value to describe it, to respective one-dimensional parameters (Col. 19, Lines 56-67; Col. 20, Lines 1-19; Col. 1, Lines 27-34; Col. 4, Lines 31-34).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claims 1 and 20 of the instant application, the limitations of claims 1 and 20 of the instant application is recited in claim 1 of the copending application except that the copending application includes a limitation for further compressing the table of encoded data values using a data compression process; and transmitting the further compressed table of encoded data values. It would have been obvious to one of ordinary skill in the art at the time of invention to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

Claim 2 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 2 of the instant application, the limitations of claim 2 of the instant application is recited in claim 3 of the copending application except that the copending application includes a limitation for further compressing the table of encoded

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data values using a data compression process; and transmitting the further compressed table of encoded data values. It would have been obvious to one of ordinary skill in the art at the time of invention to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

Claim 6 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 6 of the instant application, the limitations of claim 6 of the instant application is recited in claim 1 of the copending application except that the copending application includes a limitation for further compressing the table of encoded data values using a data compression process. It would have been obvious to one of ordinary skill in the art at the time of invention remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery such as compression and/ or decompression is performed in which it reduces cost in implementing a communication device.

Claim 7 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 7 of the instant application, the limitations of claim 7 of the instant application is recited in claim 2 of the copending application except that the

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compending application includes a limitation for further compressing the table of encoded data values using a data compression process. It would have been obvious to one of ordinary skill in the art at the time of invention to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery such as compression and/ or decompression is performed in which it reduces cost in implementing a communication device.

Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of compending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 8 of the instant application, the limitations of claim 8 of the instant application is recited in claim 2 of the compending application except that the compending application includes a limitation for further compressing the table of encoded data values using a data compression process. It would have been obvious to one of ordinary skill in the art at the time of invention to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery such as compression and/ or decompression is performed in which it reduces cost in implementing a communication device.

Claims 1 and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of compending Application No. 10/851,276 (US 2002/0181555).

Regarding claims 1 and 20 of the instant application, the limitations of claims 1 and 20 of the instant application is recited in claim 9 of the compending application except

that the copending application includes a limitation for further compressing the table of encoded data values using a data compression process; and storing the further compressed table of encoded data. It would have been obvious to one of ordinary skill in the art at the time of invention to store any types of data values for further processing; to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps; and furthermore, no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

Claim 2 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 2 of the instant application, the limitations of claim 2 of the instant application is recited in claim 10 of the copending application except that the instant application includes a limitation for transmitting the table of encoded data values and the copending application includes a limitation for further compressing the table of encoded data values using a data compression process; storing the further compressed table of encoded data values and a set of reference data values used by a decoder. It would have been obvious to one of ordinary skill in the art at the time of invention that the table of encoded data values are transmitted to a receiver; and furthermore, store any types of data values for further processing; to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the

steps, wherein no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

Claim 7 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 7 of the instant application, the limitations of claim 7 of the instant application is recited in claim 10 of the copending application except that the instant application includes a limitation for transmitting the table of encoded data values and the copending application includes a limitation for further compressing the table of encoded data values using a data compression process; storing the further compressed table of encoded data values and a set of reference data values used by a decoder. It would have been obvious to one of ordinary skill in the art at the time of invention that the table of encoded data values are transmitted to a receiver; and furthermore, store any types of data values for further processing; to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps, wherein no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of copending Application No. 10/851,276 (US 2002/0181555).

Regarding claim 8 of the instant application, the limitations of claim 8 of the instant application is recited in claim 10 of the copending application except that the



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instant application includes a limitation for transmitting the table of encoded data values and the copending application includes a limitation for further compressing the table of encoded data values using a data compression process; storing the further compressed table of encoded data values and a set of reference data values used by a decoder. It would have been obvious to one of ordinary skill in the art at the time of invention that the table of encoded data values are transmitted to a receiver; and furthermore, store any types of data values for further processing; to remove the step of compressing the table of encoded data values using a data compression process in order to reduce the steps, wherein no data recovery is performed such as compression and/ or decompression in which it reduces cost in implementing a communication device.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-14, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim (US 5,339,164), and further in view of Sah et al (US 2003/0028509).

As to claims 1 and 20, Lim teaches a method and/ or apparatus comprising encoding data values described by one or more multi-dimensional parameters, each of

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which requires more than one value to describe an associated one of the parameters (Col. 19, Lines 56-67; Col. 20, Lines 1-19), by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters (Col. 4, Lines 31-34) and creating a table of encoded data values (Fig. 6; run length coding) in which the data values are represented by their respective encoded counterparts utilizing the one-dimensional parameters (Fig. 2; Col. 4, Lines 1-34; Col. 6, Lines 27-50). Lim is silent about the redundant ones of the encoded data values share common table entries. Sah teaches compressing data values using run length encoding, wherein the redundant ones of data values share common table entries (Pg. 5, Par. 52). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Sah with Lim in order to reduce memory consumption for the data in which it is advantageous when the data is repeatedly scanned (Par. 58).

As to claim 11, Lim teaches a method comprising encoding data values having one or more multi-dimensional parameters, each of which requires more than one value to describe an associated one of the parameters (Col. 19, Lines 56-67; Col. 20, Lines 1-19) by combining a lossy encoding (i.e. DCT and quantizing coding) process in which the one or more multidimensional parameters of the data values are mapped to respective one-dimensional parameters and stored in a table of encoded data values (Fig. 2 and 6; Col. 4, Lines 2-34). Lim is silent about a lossless encoding process in which redundant ones of the encoded data values are arranged to share common entries. Sah teaches compressing data values using run length encoding, wherein the redundant ones of data values share common table entries (Pg. 5, Par. 52). Therefore,

it would have been obvious to one of ordinary skill in the art to combine the teaching of Sah with Lim in order to reduce memory consumption for the data in which it is advantageous when the data is repeatedly scanned (Par. 58).

As to claims 2 and 12, Lim teaches the data values comprise pixel information (Col. 6, Lines 7-14).

As to claims 3 and 13, Lim teaches the data values comprise position information (Col. 6, Lines 7-14).

As to claims 4 and 14, Lim teaches all the subject matters claimed above, except for the redundant ones of the encoded data values share identical parameter values. Sah teaches the encoded data values share identical parameter values (Par. 52 and 58).

As to claims 6 and 16, Lim teaches transmitting the table of encoded data values to a receiver (Fig. 14A, Block 1432).

As to claims 7 and 17, Lim teaches decoding the table of encoded data values at the receiver using the table of encoded data values (Fig. 13B) and a set of reference information (Fig. 13A and B; Col. 14, Lines 2-25).

As to claims 8 and 18, Lim teaches transmitting the reference information values together with the table of encoded data values (Fig. 13A and B; Col. 14, Lines 2-25).

As to claims 9 and 19, Lim teaches storing the reference information values at the receiver prior to the transmission of the table of encoded data values (Fig. 13A and B; Col. 14, Lines 15-38).

Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim and Sah, further in view of Uchibayashi (US 2003/0133169).

As to claims 5 and 15, Lim and Sah teach all the subject matters claimed above, except for the redundant ones of the encoded data values share parameter values, which are similar to one another within a tolerance range. Uchibayashi teaches the redundant ones of the encoded data values share parameter values, which are similar to one another within a tolerance range (Par. 2). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Uchibayashi with Lim and Sah in order to identify the redundant information values to reduce the amount of scanning necessary by a storage node and reduces memory consumption for the data file when scanned into memory.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

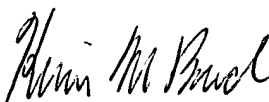
Senoh (US 6,785,429) see figures 4 and 6-9 for mapping multi-dimensional parameters of data values are mapped to respective one-dimensional parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam  
May 4, 2006

  
**KEVIN BURD**  
**PRIMARY EXAMINER**